

**PATTERN RECOGNITION METHOD FOR DIAGNOSIS OF
SYSTEMIC AUTOIMMUNE DISEASES**

ABSTRACT OF THE DISCLOSURE

An array of autoantibodies is quantitated in a patient sample and analyzed toward a diagnosis of systemic autoimmune diseases. The analysis uses any of various known pattern recognition techniques, for example k-nearest neighbor analysis, to compare the array of quantitation data to sets of data previously obtained from subjects having known systemic autoimmune diseases, thereby determining the particular disease(s) that the patient is suffering from as well as the degree of confidence or likelihood of accuracy of the determination. The method is effective in identifying a single disease and also in identifying two or more diseases simultaneously present. The method is readily susceptible to automated data processing, eliminating much of the human judgment and error that were previously entailed in diagnosing these diseases.

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